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10/657,145	09/09/2003	David Alexander	IMMR023/04US	1899

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EXAMINER

MUSSELMAN, TIMOTHY A

ART UNIT

PAPER NUMBER

3714

DATE MAILED: 12/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

NT

Office Action Summary	Application No. 10/657,145	Applicant(s) ALEXANDER ET AL.	
	Examiner Timothy Musselman	Art Unit 3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-20 and 34-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-20 and 34-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9-9-2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/31/2005, 11/21/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

In response to the amendment filed on 11/21/05, claims 12-20 and 34-44 are pending, and claims 1-11 and 21-33 are canceled,

Allowable Subject Matter

The indicated allowability of claim 18 is withdrawn in view of the newly discovered reference(s) to Bailey (US 5,800,179), and Evenson et al. (US 5,439,310). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 103

The following is a quotation of the relevant portions of 35 U.S.C. 103 that form the basis for the rejections under this section made in this office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Claims 12, 16, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey (US 5,800,179) in view of Evenson et al. et al. (US 5,439,310).

[1] With respect to claim 12, Bailey discloses a capture mechanism configured to engage a peripheral device. See column 5, lines 30-35. Bailey further discloses a coupling mechanism being configured to move in response to the movement of the peripheral device when the peripheral device is engaged by the capture mechanism (i.e. a movement guide). See column 5, lines 25-25. Bailey further discloses a sensing assembly configured to detect a manipulation of the peripheral device while the peripheral device

Art Unit: 3714

is engaged by the capture mechanism. See col 5 lines 30-35. Bailey fails to teach of the capture mechanism comprising a grasping member with an actuator configured to actuate the grasping member in response to a movement of the peripheral device. Evenson teaches of such in column 4, lines 5-20, and column 5, lines 35-45. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention, to use the method of grasping a peripheral device of Evenson, in the system of Bailey, so as to provide an effective means of fastening the peripheral device to the movement guide.

[2] With respect to claim 16, Bailey further teaches of the capture mechanism being disposed within the sensor assembly. See column 5, lines 30-35.

[3] With respect to claim 17, Bailey fails to teach of the capture mechanism further including a plurality of jaws configured to surround and engage the peripheral device. Evenson teaches of such in See column 2, lines 15-25. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention, to use the device for grasping an elongate peripheral device described by Evenson, in the system disclosed by Bailey, so as to provide an effective method of fastening the peripheral device to the movement guide.

[4] With respect to claim 19, Bailey fails to teach of an automatic capture and release mechanism, configured to automatically actuate the plurality of jaws to engage the peripheral device. Evenson teaches of this in column 5, lines 20-45. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention, to use the automatic capture and release mechanism described by Evenson, in the system of bailey, so as to provide an efficient automatic means for connecting and disconnecting the peripheral device to the movement guide.

Art Unit: 3714

Claims 13-15, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey (US 5,800,179) in view of Evenson et al. (US 5,439,310), and in further view of Sullivan et al. (US 5,746,753).

[5] With respect to claims 13 -15, Bailey/Evenson disclose a system that meets all of the requirements of claim 12 as described in paragraph 1 above. Bailey/Evenson fail to teach of the grasping member having a tubular shape as per claim 13. Sullivan teaches of the grasping member having a tubular shape in column 4 line 67 – column 5 line 5. Bailey/Evenson further fail to teach of a spring, configured to elongate and compress the tubular grasping member in response to a movement of the peripheral device such that the cross sectional dimension of the tubular grasping member is adjusted, as per claim 14. Sullivan teaches of such in Column 5, lines 38-53. Bailey/Evenson further fail to teach of the tubular grasping member being configured to engage the peripheral device in response to the elongation of the tubular member, and release the peripheral device in response to the compression of the tubular member, as per claim 15. Sullivan teaches of such in column 5, lines 1-12. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention, to use the grasping mechanism described by Sullivan, in the medical simulation system disclosed by Bailey/Evenson, so as to provide a quick and efficient method for grasping and retaining medical instruments to the movement guide.

[6] With respect to claim 18, Bailey teaches of a capture mechanism configured to engage a peripheral device in response to a movement of said peripheral device, a coupling mechanism being configured to move in response to the movement of the peripheral device when the peripheral device is engaged by the capture mechanism, which is enclosed within a sensing assembly configured to detect a manipulation of the peripheral device while the peripheral device is engaged by the capture mechanism. See col 5 lines 25-35. Bailey fails to teach of an actuator being configured to actuate a grasping member in response to a movement of the peripheral device. Evenson teaches of this in column 4, lines 5-20. Bailey further fails to teach of a spring biasing the jaws in a closed position. Evenson teaches of this in column 4, lines 30-40. Note that the spring described by Evenson operates to keep the collet expander in a closed (i.e. clamped)

Art Unit: 3714

position. Bailey further fails to teach of a semi-conical expander disposed proximate to the spring, configured to manipulate the plurality of jaws between the closed position and an open position, and an actuator disposed proximate and being coupled to the semi-conical expander. Evenson teaches of this in column 4, lines 5-20, and column 4, lines 30-40. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to use the grasping mechanism of Evenson, in the system of Bailey, so as to provide a secure connection of the peripheral device to the coupling mechanism. Bailey/Evenson fail to teach of at least a portion of the grasping member being disposed within the spring that is biased to maintain the grasping device in a closed position. Sullivan teaches of such in column 5, lines 38-53. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention, to have at least a portion of the grasping member disposed within a spring as described by Sullivan, in the system of Bailey/Evenson, so as to provide an effective manner of retracting and expanding the grasping device.

[7] With respect to claim 20, Bailey/Evenson fail to teach of the capture mechanism being activated by a force applied by a lever associated with a movement of the peripheral device. Sullivan teaches of activating a grasping mechanism with a lever in column 3, lines 35-40. Sullivan teaches in the abstract that the grasping member is opened and closed for the purpose of grasping a peripheral device, thus the opening and closing of the grasping device with the lever is associated with a movement of the peripheral device (i.e. the movement of the device into the grasping mechanism). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention, to use the lever actuated grasping device of Sullivan, in the system of Bailey/Evenson, so as to provide an efficient means for actuating the grasping device.

Claim 34 is rejected under 35 U.S.C. as being unpatentable over Bailey (US 5,800,179) in view of Randolph (US 2,428,954).

Art Unit: 3714

[8] With respect to claim 34, Bailey discloses a method for simulating a medical procedure in a medical procedure simulation system, the system comprising of receiving a peripheral device into a capture mechanism, the capture mechanism being configured to engage the peripheral device. See column 2, lines 25-35. Bailey fails to teach of automatically engaging the peripheral device based on a first movement of said device, and automatically releasing the peripheral device based on a second movement of said device. Randolph teaches this in column 3, lines 50-65. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to use the automatic engage/disengage mechanism of Randolph in the system of Bailey, so as to provide a quick connect/disconnect means for the peripheral device.

Claims 35, and 39-40 are rejected under 35 U.S.C. as being unpatentable over Bailey (US 5,800,179) in view of Randolph (US 2,428,954) and in further view of Sullivan et al. (US 5,746,753).

[9] With respect to claim 35, Bailey/Sullivan disclose a system that meets all of the limitations of claim 34 as described in paragraph 8 above. Bailey/Randolph fail to teach of providing frictional engagement to the peripheral device. Sullivan teaches of this in column 3, lines 35-45. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to use the frictional engagement taught by Sullivan in the system of Brown/Randolph so as to securely engage the peripheral device.

[10] With respect to claims 39 and 40, Bailey/Randolph fail to teach of inserting the peripheral device into a tubular member having a cross sectional dimension, moving a spring from a first position to a second position, wherein the second position is different from the first position, and reducing the cross sectional dimension of the tubular member based on the movement of the spring, and frictionally engaging the peripheral device with the tubular member while the cross sectional dimension is reduced, or of releasing the peripheral device by increasing the cross sectional dimension of the tubular member based on the movement of the spring from the second position to the first position. Sullivan teaches of this in column 5 lines 1-15, and column 5 lines 38-55. Therefore, it would have been obvious to one with ordinary skill in

Art Unit: 3714

the art at the time of the invention to use the method of grasping and releasing a peripheral device taught by Sullivan in the system of Bailey/Randolph so as to provide a convenient method to securely engage the peripheral device.

Claims 36-38 are rejected under 35 U.S.C. as being unpatentable over Bailey (US 5,800,179) in view of Randolph (US 2,428,954) and in further view of Evenson et al. (US 5,439,310).

[11] With respect to claims 36-38, Randolph further teaches of engaging/disengaging the peripheral device based on the mechanical movement of a lever. See column 3, lines 50-65. Bailey/Randolph fail to teach of engaging the peripheral device with a plurality of jaws. Evenson teaches of such in column 5, lines 15-20. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to use the plurality of jaws described by Evenson, in the system of Bailey/Randolph, so as to provide an effective method for engaging the peripheral device.

Claims 41 and 42 are rejected under U.S.C. 103(a) as being unpatentable over Sullivan et al. (US 5,746,753) in view of Muff (US 5,476,493).

[12] With respect to claims 41 and 42, Sullivan discloses a grasping member configured to engage an elongate peripheral device configured as a medical instrument (a suture needle). See column 3, lines 25-30. Sullivan further discloses an actuator (i.e. trigger) configured to reduce a cross sectional dimension of the grasping member. See column 5, lines 15-25. Sullivan further discloses a spring assembly being coupled to the grasping member and being configured to change a dimension of the grasping member such that the elongate peripheral device is engaged. See column 5, lines 38-55. Sullivan further discloses an expandable tubular member configured to frictionally engage the elongate peripheral device. See column 6, lines 30-35. Sullivan fails to teach of the grasping member being constructed from a woven mesh material. However, Muff teaches of such. See abstract. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention, to use the woven mesh grasping member of

Art Unit: 3714

Muff, in the grasping system of Sullivan, so as to provide a grasping member that can be readily expanded and constricted based on axial compression.

Claims 43 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sullivan (US 5,746,753) in view of Muff (US 5,476,493) and in further view of Evenson (US 5,439,310).

[13] With respect to claim 43, Sullivan fails to teach of a grasping member consisting of a plurality of jaws being movable between a first position and a second position based on forces applied by an actuator. Evenson teaches this in column 2, lines 15-25, and column 4, lines 15-20. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to use the grasping method of Evenson in the system of Sullivan so as to provide for a more versatile means for fastening a peripheral device.

[14] With respect to claim 44, Sullivan further teaches of a lever being configured to receive an actuating force from the actuator (i.e. trigger), the lever being configured to apply a force to a second end of the collet expander such that the collet expander provides a force to the grasping member. See column 7, lines 10-20. Sullivan fails to teach of the grasping mechanism consisting of a plurality of jaws. Evenson teaches this in column 3, lines 15-25. Sullivan fails to teach of a plurality of jaws having a first end portion configured to receive a peripheral device. Evenson teaches of this in column 4, lines 5-15. Sullivan further fails to teach of a collet expander having a conical first end, the conical first end of the collet expander being configured to engage the plurality of jaws and maintain the plurality of jaws in an open position, the collet expander being moveable between a first and second position. Evenson teaches of this in column 2, lines 15-25, and column 4, lines 15-20. Sullivan further fails to teach of a spring being configured to bias the collet expander in a first position, such that when the collet expander moves from a second position to the first position, the plurality of jaws close about the peripheral device. Evenson teaches this in column 4, lines 30-40. Therefore, it would have been obvious to one with ordinary skill in the art at the

Art Unit: 3714

time of the invention to use the clamping method of Evenson in the system of Sullivan, so as to provide a more versatile method of fastening a peripheral device.

Response to Arguments

Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy Musselman whose telephone number is (571)272-1814. The examiner can normally be reached on Mon-Thu 6:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Olszewski can be reached on (571)272-6788. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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